



TITLE 22
EMERGENCY REGULATIONS
Perchlorate Best Management Practices
DEPARTMENT REFERENCE NUMBER: R-2005-03

FINDING OF EMERGENCY

These emergency regulations are mandated by section 25210.6 of California Health and Safety Code.

AUTHORITY AND REFERENCE

These regulations are being proposed under the authority of the California Health and Safety Code section 25210.6, which requires the Department of Toxic Substances Control (DTSC) to adopt emergency regulations implementing the legislative mandates of the Perchlorate Contamination Prevention Act [Assem. Bill No. 826 (2003-2004 Reg. Sess.)], referenced below as the Act, on or before December 31, 2005.

INFORMATIVE DIGEST/PLAIN ENGLISH OVERVIEW

Introduction

The Act states, “The discharge of perchlorate waste into the environment through air, surface and subsurface soils, surface water and groundwater media is a threat to water supply and to wildlife habitat, such as wetlands.” The Act further mandates that, “On or before December 31, 2005, the Department shall adopt regulations specifying best management practices for a person managing perchlorate materials.” The Act also defines “perchlorate material” as “...perchlorate and all perchlorate-containing substances, including, but not limited to, waste perchlorate and perchlorate-containing waste.”

In addressing the mandate presented in the Act, DTSC recognizes the following legislative intent:

- a primary goal of the Act is to reduce (or eliminate) the release of perchlorate into the environment;
- this reduction shall be accomplished by the adoption of regulations, by DTSC, requiring compliance with best management practices for perchlorate materials; and
- these best management practices (BMPs) shall apply to all management activities and shall apply to all perchlorate containing materials.

As such, the Legislature has tasked DTSC to regulate and provide oversight in areas beyond its traditional role of regulating only hazardous wastes. The Legislature has also instructed that, because of environmental concerns, these

regulations be adopted expeditiously as emergency regulation with a primary purpose of protecting water resources.

Existing Law

Typically when perchlorate is intentionally added to a material, its addition is intended to impart specific chemical characteristics on that material. Perchloric acid and perchlorate salts are strong oxidizers, highly reactive, and typically flammable. Perchlorate-containing materials in which the perchlorate is intentionally added, therefore, tend to also exhibit these chemical characteristics. Materials that exhibit hazardous characteristics such as reactivity and flammability are typically classified as a U.S. Department of Transportation (DOT) hazardous material and are regulated under the Code of Federal Regulations, title 49, parts 100-199. Hazardous materials, so defined, are subject to packaging, marking, placarding, handling, shipping paper, and manifesting requirements. Perchlorate wastes that retain hazardous characteristics are subject to regulation as hazardous waste under the federal Resource Conservation and Recovery Act (RCRA) or the state equivalent. Hazardous wastes in California must be managed in accordance with standards specified in California Code of Regulations, title 22, division 4.5. Hazardous waste management standards include labeling, containment, accumulation, manifesting, permitting, and disposal requirements.

In general, perchlorate containing wastes are classified as an ignitable hazardous waste under California Code of Regulations, title 22, section 66261.21 by meeting the definition of oxidizer as specified in section 66261.21(a)(4). Because perchlorate wastes are typically not "listed" hazardous wastes (with the possible exception of K044 and K045), perchlorate wastes that no longer exhibit hazardous characteristic would cease to be regulated as a hazardous waste. This distinction is especially relevant in the case of perchlorate. Historically, handling protocols for perchlorate wastes suggest dousing with water. This practice continues as an effective method for eliminating fire and explosion risk. In addition, the dousing process, if sufficient, would eliminate the hazardous characteristic making the material non-hazardous. The material would, therefore, not be subject to hazardous waste requirements including disposal restrictions. Perchlorate ion would, however, persist in the doused material and would continue to pose a risk to water resources.

Residuals from combusted perchlorate materials or products are currently not regulated as a hazardous waste, if they no longer display the ignitable/oxidizer characteristic (they may be hazardous due to metal content). Likewise materials and products that contain intentionally added perchlorate at concentration too low to demonstrate hazardous characteristics or materials containing perchlorate as a result of contamination or byproduct formation would also not be subject to hazardous waste requirements.

In defining “perchlorate material” as “...perchlorate and all perchlorate-containing substances...” the Act mandates the adoption of BMPs for all perchlorate containing materials in order to minimize the release of perchlorate into the environment. While certain BMPs are required for hazardous materials, hazardous wastes, and various other perchlorate-containing materials, most existing requirements address perchlorate’s fire and explosion risk but do not specifically address releases or the prevention of environmental contamination.

Policy Statement Overview

The objective of these regulations is to establish BMPs for perchlorate materials, comply with the requirements specified by the Act in a way that is least burdensome for the regulated community, and protect public health and safety, and the environment. Upon adoption of these regulations, the Act prohibits a person from managing perchlorate materials unless the management complies with the requirements of the BMPs.

Proposed Regulations

As authorized by the Act, these regulations do the following:

1. Define the term “perchlorate material” as follows:
““Perchlorate material” as defined in Health and Safety Code, section 25210.5(c) means all perchlorate-containing materials including perchloric acid and perchlorate compounds. “Perchlorate material” includes all forms of matter, goods, and products and shall not be limited by other statutory or regulatory definitions of “material.””
2. Establish when and what materials are required to meet the BMPs in this chapter. The regulation establishes July 1, 2006 as the implementation date of the BMP requirements but also extends a phase-in period for consumer goods until December 31, 2006. Materials found to be adequately regulated by existing regulations and materials for which BMP requirements are impractical are listed and are exempted from the BMP regulations. For example, hazardous wastes are specifically exempted from the BMP requirements; hazardous waste regulations were found to be adequate for the prevention of releases to the environment and more rigorous than those found in the BMPs. Likewise, because it would be impractical to regulate materials containing insignificant amounts of perchlorate, materials containing perchlorate at concentrations less than 6 parts per billion (ppb) are exempted from the BMP requirements; this concentration is in line with the Public Health Goal of 6 ppb established by the California Office of Environmental Health Hazard Assessment.
3. Establish a set of material management standards applicable to materials meeting the definition of “perchlorate material” and identifies these standards as the BMPs. These BMPs are grouped into sections including:
 - a. Labeling
The labeling section establishes the requirement that perchlorate materials be labeled or accompanied by a document that identifies the material as a perchlorate material. The labeling requirement specifies that the label or

accompanying document contain the phrase “Perchlorate Material – special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate.” Materials for which labeling was found to be unnecessary or impractical are listed and exempted from the labeling requirement.

b. Packaging

The packaging section establishes the requirement that packages used to contain perchlorate materials must be durable and water-resistant. Perchlorate-containing products that are constructed such that the perchlorate is contained within a durable, water-resistant compartment are deemed to meet the packaging requirement.

c. Containment

The containment section establishes the requirement that perchlorate materials not packaged within a durable, water-resistant package must be contained within a structure with floors that prevent releases to the environment. Materials for which containment was found to be impractical are listed and exempted from the containment requirement.

d. Notification

The notification section establishes the requirement that businesses possessing more than 500 pounds or 55 gallons of perchlorate material, during the period July 1, 2006 through June 30, 2007, notify DTSC with contact information, type of business, perchlorate materials handled, use of material, disposition of material. Perchlorate materials found to be adequately reported under existing regulations and materials for which notification is impractical are listed and exempted from the notification requirement.

e. Special Practices

The special practices section establishes additional requirements for personnel who routinely use safety flares and for pyrotechnics operators. The BMPs suggest procedures for minimizing release of perchlorate material from the use of safety flares and suggests that all personnel who routinely use safety flares in the normal course of employment be instructed on the potential environmental hazards associated with the use of safety flares and on the perchlorate BMPs. Pyrotechnic operators are required to, within twenty-four hours of a public display of fireworks or dangerous fireworks, inspect the firing range and, to the extent practical, collect any unignited pyrotechnic materials.

f. Spill Response

The spill response section establishes requirements for the containment and remediation of release of non-hazardous perchlorate materials.

g. Discharge/Disposal

The discharge/disposal section establishes conditions under which non-hazardous perchlorate materials may be discharged or disposed. Land disposal of non-hazardous perchlorate material may be done only to a hazardous waste landfill or a composite-lined landfill maintaining monitoring. The discharger of non-hazardous perchlorate material must notify the overseeing regulatory agency and the appropriate Regional Water Quality Control Board of the discharge, and must include

perchlorate in a monitoring program, if deemed necessary by the overseeing regulatory agency. Materials for which discharge/disposal requirements were found to be impractical are listed and exempted.

h. Pollution Prevention

The pollution prevention section establishes additional requirements for businesses that use perchlorate-containing fertilizers, safety flares, commercial explosives, commercial blasting agents, dangerous fireworks, and solid rocket motors. Businesses using perchlorate-containing fertilizers, safety flares, commercial explosives, and commercial blasting agents must review their use of these materials to determine if adequate alternatives are available and must review and update pollution prevention measures taken to prevent releases of perchlorate. These reviews must be conducted every five years. All businesses that use perchlorate-containing dangerous fireworks or solid rocket motors must add perchlorate to existing monitoring programs and report analytical results to DTSC.

STATEMENT OF FACTS SUPPORTING FINDING OF EMERGENCY

These regulations are deemed necessary by statute, for the immediate preservation of the public peace, health and safety, and general welfare. Section 25210.6, subsection (c) of the Health and Safety Code reads:

“The regulations adopted by the department pursuant to this section shall be adopted as emergency regulations in accordance with Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code, and for the purposes of that chapter, including Section 11349.6 of the Government Code, the adoption of these regulations is an emergency and shall be considered by the Office of Administrative Law as necessary for the immediate preservation of the public peace, health and safety, and general welfare. Notwithstanding Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code, including subdivision (e) of Section 11346.1 of the Government Code, any emergency regulations adopted pursuant to this section shall be filed with, but not be repealed by, the Office of Administrative Law and shall remain in effect until revised by the department.”

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) COMPLIANCE

DTSC has found this project to be exempt from CEQA under the California Code of Regulations, title 14, section 15308, as an action taken by a regulatory agency, as authorized by statute, to assure the protection of the environment. The changes resulting from this rulemaking do not have the potential to cause other adverse environmental effects. A draft of the Notice of Exemption is available for review with the rulemaking file and will be filed with the State Clearinghouse when the regulations are adopted.

ADDITIONAL STATUTORY MANDATES

The Act required that, prior to adopting perchlorate BMP regulations, DTSC shall "...consult with the State Air Resources Board, the Office of Environmental Health Hazard Assessment, the State Water Resources Control Board, the Office of Emergency Services, the State Fire Marshal, and the California certified unified program agencies forum..." These consultations were conducted by way of meetings, correspondence, and workshops that are documented in the public record.

The Act required that, prior to adopting perchlorate BMP regulations, DTSC shall "...review existing federal, state, and local laws governing the management of perchlorate materials to determine the degree to which uniform and adequate requirements already exist, so as to avoid any unnecessary duplication of, or interference with the application of, those existing requirements." DTSC conducted this review by consulting with the agencies listed above and by soliciting input during, and in response to, three public workshops that are documented in the public record.

The Act required that DTSC shall "...ensure that those regulations are at least as stringent as, and to the extent practical consistent with, the existing requirements of Chapter 6.95 (commencing with Section 25500) and the Uniform Fire Code governing the management of perchlorate materials." The BMP regulations apply additional requirements to persons managing perchlorate materials and do not replace nor supersede any existing requirements. The perchlorate BMP regulations are, therefore, more stringent than existing requirements.

FISCAL IMPACT ESTIMATES

Mandates on Local Agencies and School Districts

DTSC has determined that adoption of these regulations creates no new mandates on local agencies or school districts.

Estimate of Potential Cost or Savings to Local Agencies Subject to Reimbursement

DTSC has determined the emergency regulations will not impose a local mandate or result in costs subject to reimbursement pursuant to part 7 of division 4, commencing with section 17500 of the Government Code. Certified Unified Program Agency (CUPAs) may incur additional costs related to investigate enforcement of perchlorate BMP regulations but these local costs are not reimbursable mandates because CUPAs are funded by locally assessed fees, which could be increased if necessary to cover the costs of investigating missing waste reports.

Cost or Savings to Any State Agency

Fiscal and Economic Impact: Additional notification and reporting requirements on businesses that use perchlorate will result in an additional cost associated to DTSC to process and review these submissions. Also in order to implement these regulations, DTSC plans to provide preliminary education and outreach to effected stakeholders and to maintain a website containing perchlorate BMP information. DTSC expects a one time cost of \$4,375 for processing perchlorate BMP notifications, a one time cost of \$4,800 for education and outreach, a one time cost of \$3,840 for processing perchlorate BMP monitoring reports, and an annual cost of \$576 for maintaining the Perchlorate website. DTSC will absorb the fiscal impact by using existing staff resources.

Environmental monitoring requirements placed on solid waste landfills and Publicly Owned Treatment Works that receive perchlorate wastes will result in an additional cost to the Regional Water Quality Control Boards to process environmental monitoring modification requests. DTSC estimates a one time cost of \$6,720 and an annual cost of \$192 for processing and review of submissions.

The perchlorate BMPs also suggest management standards applicable to the use of safety flares by public safety professionals. These management standards are “suggested practices” and, therefore are not mandated cost.

Cost or Savings in Federal Funding to the State

DTSC has determined that the proposed regulations will have no impact on federal revenue or costs.